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09/840,130	04/24/2001	Isao Nishimura	206525US0	4417

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EXAMINER

HAMILTON, CYNTHIA

ART UNIT	PAPER NUMBER
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1752

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DATE MAILED: 01/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,130

Applicant(s)

NISHIMURA ET AL.

Examiner

Cynthia Hamilton

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/24/01, 7/9/01, 10-22-01, 11-14-01, 11-2-02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) 1-3, 12-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-9, 12-13 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3-5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's election with traverse of Group II (claims 4-9) in Paper No. 7, filed November 1, 2002 is acknowledged. The traversal is on the ground(s) that (1) with respect to Groups I, II, and III, "an undue search burden would not seem to be placed on the Examiner in conducting a search for relevant prior art for the three invention classes indicated because a complete search for relevant prior art is indicated as possible in a single Class which is Class 430 and in three subclasses", that (2), with respect to Group II and III, Group III as now amended has not been properly separated from Group II because the examiner failed to shown the product can be made by a method that is materially different from the method claimed in the application and the examiner has not shown or demonstrated such on the record, and that (3) with respect to Groups I and II, the examiner has failed to demonstrate on the record that the intermediate can be used to make something other than the claimed final product, i.e. a barrier rib. This is not found persuasive because with respect to undue burden (1):

- a. With respect to Group I. Subclass 281.1 of class 430 has 1740 US patent documents listed in the computerized database. This is only the start for a complete search base for Group I. Consideration of Class 522 must be made because a photocurable composition without structure of any kind is claimed along with other subclasses in 430 such as 285.1 for claim 3 because a polyester is claimed. This subclass has 535 references of which 333 are not part of subclass 281.1. All of this is not required to search for the barrier rib of Group II or the process of Group III.
- b. With respect to Group II, the barrier rib of this group is searched for in class 430 if only an imaged rib is considered, but since a rib can be formed by screen printing down

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a pattern without using a 430 process other classes may have to be considered if class 430 does not yield art. The barrier rib in an EL device may also be in the device art and not near the method of making, i.e. class 430. Further, applicants claim only that the barrier rib be formed from the composition. There is no requirement that the composition stay the same, be cured or not be further modified before being formed in some manner into a barrier rib. There is no requirement as to how the barrier rib be formed other than formed from a radiation sensitive resin and that in dependent claim 8 avoidance of some volatile component be made somewhere in the forming. 430/18 has 379 documents alone.

Because of the generic nature of applicants "forming" of their barrier ribs, the examiner must also do extensive database searches on much broader databases than subclass 18.

The search for a barrier rib is quite different than the search for a non structured radiation sensitive resin that only has the ability for forming barrier ribs for an EL display element. This type of limit does not exclude all radiation sensitive resins that are inherently able to perform such a function without making any mention of EL devices or barrier ribs.

c. With respect to Group III, the search for the processes as now set forth in amended claims 12-13 (original claims 10-11 drawn to "use" claims only) would because an EL device is an electrical device be searched still in class 430, subclass 311. There are 1642 US patent documents in this subclass of which 1571 are not part of subclass 18 or subclass 281.1.

The burden is held undue in view of the examiner's expertise in searching this art for nearly 20 years and in view of the above numbers.

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2. With respect to argument (2), the examiner did not set forth reasons for separating group II from Group III due to the non statutory "use" claims presented by applicants. There should have been no Group III. These claims have now been cancelled, making the issue moot. It was the examiner's intent to give applicants a full choice in their election instead of allowing claims 10-11 to be rejected in the first action on the merits then when applicants amended the claims to a process, as the usual choice of applicants, issuing an election by original presentation excluding the process claims, *i.e. never giving applicants a chance to elect process claims in this application*. The use claims were more properly kept with Group I to be rejected and not searched because they were drawn to a non statutory class of invention. Applicants have presented new claims 12-13 directed to a process that would have been properly considered under the requirements for original Group III if originally presented. Now that the claims are presented in a recognized class of invention instead of "use" claims, the examiner will set forth the reasons for separation. Newly submitted claims 12-13 are directed to an invention (IIIA) that is independent or distinct from the invention originally claimed for the following reasons:

Inventions IIIA and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as screen printing down a pattern of barrier ribs and overall curing the pattern put down. This does not require an imaging step as set forth in Group III.

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Inventions I and IIIA are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product can be used as ink wherein it is screen printed down in pattern wise manner then over all cured by light exposure or the product can be used as a base for molding automobile parts wherein heat and light are used for total cure of the molded part.

Because these claims were presented after the requirement for restriction, the examiner is addressing them at the first opportunity. There is no reason to delay finality because the claims were presented after the requirement.

With respect to argument (3), the examiner did set forth other uses for the intermediate product in paragraph 4 of the last Office Action. The uses were in an ink or printing plate composition for forming a relief plate or encapsulating electronic parts or forming car paint. The examiner is only required to give other uses for the intermediate. MPEP 806.04(b) sets forth that the examiner must give an example of an alternative use but is not required to provide documentation. The applicant has the burden to prove or provide a convincing argument that the intermediate product does not have the suggested use. There is no requirement for "demonstration" by the examiner.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 1-3 and 12-13 (presented to replace claims 10-11) considered part of Group III are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a

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nonelected Invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6, filed November 1, 2002.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants use "EL" (claims 4-9 in "EL display element") and "OD" (claim 6) without definition. Thus, what is encompassed by these apparent abbreviations is unclear. The examiner assumes "EL" stands for electroluminescence for examination purposes which is "the emission of light by a phosphor or semiconductor that is excited by an electromagnetic field" as defined by AP Dictionary of Science and Technology. Applicants can overcome this lack of clarity by showing workers of ordinary skill in this art would understand what EL stands for without further definition. Presentation of definitions of EL in art recognized general references such as encyclopedias or dictionaries would act as evidence. As to OD, the examiner has assumed for examination purposes that optical density is meant because on page 47 OD value is determined by an optical densitometer.

7. Claims 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

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the invention. The limitation set forth in claim 8 is that "the amount of a volatile component generated by heating from 25°C to 200°C is 10% or less of the weight of the barrier rib". Claim 8 depends upon claim 4. There is no clear antecedent basis for a heating step or volatile component in claim 4. It is not clear when this heating occurs and from where and when volatile component is excluded. It is unclear whether the limitation is to the formation of a barrier rib only after such a component has been out gassed or to never having such a component present in formation of the barrier rib or if the radiation sensitive resin used to form the barrier rib never has such a component present. The language of the claim is too vague with respect to claim 4 as to clearly set forth what is meant by this language. The examiner assumes for examination purposes that the final barrier rib claimed can have no more than 10% of such a component present. No other supposition is made because of the vague claim language.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakurai et al (US 6, 013,415). See Examples 19-21 in Sakurai et al wherein the imaged layers formed are inherently barrier ribs as they match the process steps set forth in instant claims 12-13 wherein substrate is not specified.

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10. Claims 4-6, 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Uchikawa et al (5,368,991). See particularly in Uchikawa et al Field of invention, partitions, Examples and Figures and col. 9. the patterned layers formed are inherently barrier ribs.

11. Claims 4-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sega et al (6,001,533). See in Sega et al , particularly Examples and col. 1, wherein the imaged layer is inherently barrier ribs.

12. Claims 4-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Masuko et al (EP 0 915 381). See in Masuko et al , particularly [0152-0153] and Example 1 wherein the imaged layer is inherently barrier ribs after being imaged.

13. Claims 4-6 and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Itano et al (EP 0 875 788 A1). See particularly claims, examples and page 1 of Itano et al wherein the imaged layer formed is inherently Barrier ribs pattern.

14. Claims rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al (EP 0 359 934 a1). IN Shimizu et al, see particularly page 1 and Examples wherein the Black Matrix is inherently the Barrier ribs formation

15. Claims 4-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Itano et al (EP 0 881 541 A1). The black matrix is the barrier rib in Itano et al

16. Claims 4-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/04421. In WO 00/04421, see particularly claims and examples wherein in the black matrix pattern is inherently the barrier rib formation.

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 4-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Tokai et al (US 6,482,575 B2). The photoresists of Tokai et al are used to form tapered barrier ribs and use aqueous base soluble binders because sodium carbonate aqueous base developer is used to form the image of the rib master. In Tokai et al, see particularly abstract, figures col. 2, 3, 5 and Examples.

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19. Claims 4-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki (6,132,937). In Suzuki, see particularly Abstract, Fig. 1, col. 1, first paragraph, col. 3, col. 4, col.5, examples.
20. Claims 4-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Iguchi et al (US 6,197,480 B1). In Iguchi et al, see particularly Abstract, Technical Field, Background Technology and Summary of the Invention, examples, paragraph bridging col. 5-6 anticipate the instant barrier ribs inherently being useful for making EL devices.
21. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Tokai et al (6,120,975). In Tokai et al, see particularly Abstract, Figures, Columns 1, 3-4 and Examples. The insulation ribs formed by Tokai et al are inherently useful in EL devices.
22. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al (6,117,614). In Takahashi et al, see particularly abstract, Background of the Invention and Examples. The barrier rib formations of Takahashi et al are inherently useful in EL devices.
23. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Satou (US 6,268,112 B1). In Satou, see particularly abstract, col. 1, Summary of the Invention and Examples and col. 14. The barrier ribs formed by Satou are inherently useful as EL barrier ribs.
24. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kakinuma et al (6,326,125 B1). In Kakinuma et al, see particularly Abstract, first paragraph col. 1, 6 th paragraph col. 3 and examples. The compositions of Kakinuma et al are clearly disclosed as used to form barrier ribs. These formed ribs are inherently useful in EL display devices.
25. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kakinuma et al (6,342,322 B1). In Kakinuma et al, see particularly Abstract, first paragraph in col. 1 and a

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barrier rib pattern, Summary of the Invention and Examples. The patterns formed by Kakinuma et al are inherently useful as barrier ribs for EL devices.


26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Farnworth and Lee et al show different ways to form EL barrier ribs than that set forth by instant claims 12-13.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cynthia Hamilton whose telephone number is (703) 308-3626. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on (703) 308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of papers not received regarding this communication or earlier communications, or of a general nature or relating to the status of this application or proceeding should be directed should be directed to the Customer Service Center of Technology Center 1700 whose telephone number is (703) 306-5665.

Cynthia Hamilton
December 30, 2002



CYNTHIA HAMILTON
PRIMARY EXAMINER